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## LACTOFLAVIN<sup>1</sup> IN THE TREATMENT OF CANINE BLACKTONGUE

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Since it has been shown that the symptoms of vitamin G deficiency in rats are due to a deficiency in lactoflavin (riboflavin<sup>1</sup>) in the diet, there has been some question as to the identity of this substance with the pellagra- or blacktongue-preventive factor.

Rhoads and Miller (1), in 1935, reported that a blacktongue-producing diet maintained a normal rate of growth in young rats and stated that they were unable to produce blacktongue with a diet devoid of vitamin G. They inferred that blacktongue is due to some factor other than vitamin G. Birch, Gyorgy, and Harris (2), in 1935, presented evidence that the blacktongue-preventive factor was distinct from lactoflavin. Using two dogs, they showed that 30 gamma<sup>2</sup> of lactoflavin per day, given intraperitoneally, failed to cure a condition which they diagnosed as blacktongue. Their description does not agree with the symptoms of blacktongue as observed in this laboratory. They mention transverse ridges on the tongue as a prominent symptom. We have never seen such ridges in blacktongue. However, they present considerable other evidence which strongly supports the point of view that the human pellagra-preventive factor is distinct from lactoflavin and vitamin B<sub>6</sub>. In addition, Dann (3) treated three cases of pellagra with lactoflavin without success. Spies (4) treated two cases without success, and Fouts, Lepkovsky, Helmer, and Jukes (5) treated two cases without success.

Booher and Hansmann (6), in 1936, using a lactoflavin concentrate obtained from a low lactose whey powder, which they state contains at least one other heat-stable vitamin necessary for rat growth, succeeded in preventing blacktongue in one dog for 138 days, and successfully treated two dogs which had what were apparently very mild early symptoms of blacktongue. Since they were dealing with an impure preparation, these authors point out that their experiments do not indicate whether only one or more than one of the heat-stable fac-

<sup>1</sup> Since Karrer and coworkers and Kuhn and coworkers have shown that lactoflavin is 6, 7, dimethyl 9 d-riboflavin we consider the term "riboflavin" preferable to lactoflavin.

<sup>2</sup> One gamma=0.001 mg.

tors of the vitamin B complex is involved in the prevention or cure of blacktongue. They state they found that lactoflavin alone would augment the growth of rats fed a canine blacktongue-producing diet.

Koehn and Elvehjem (7), in 1936, using flavin prepared from liver extract, given by mouth as a supplement to dogs on a blacktongue-producing diet in daily amounts equivalent to 5 grams of liver extract, failed to prevent the onset of symptoms of blacktongue in three dogs and in treatment failed to cure blacktongue in one dog, although no indication of the amount of the extract used in treatment is given. The three dogs in which its preventive action was tested were depleted before the supplement was started. Since these authors do not indicate definitely the quantities of flavin used, it appears that, in spite of this evidence against flavin having any blacktongue preventive action, the failure might be due to an insufficient amount of flavin, particularly since it has been found in testing the blacktongue-preventive value of foods that entirely different results can be obtained with varying amounts of the same food (8).

#### EXPERIMENTAL

Five dogs (Nos. 316, 318, 322, 329, and 336) were placed on our basic blacktongue producing diet No. 123, the composition of which is given in table 1. It has been our experience with this ration that, with few exceptions (these due apparently to coprophagy), it will produce blacktongue in dogs within about 60 days. These 5 dogs showed the first signs of blacktongue in 53, 36, 32, 61, and 67 days, respectively. Since the early symptoms of acute blacktongue frequently recede without treatment of any kind, in order to avoid this occurrence as far as possible the symptoms were allowed to progress until the attack was well developed. This stage was reached in 6, 2, 4, 5, and 6 days, respectively, from the first appearance of symptoms. (The symptoms and course of blacktongue as observed in these animals follow the description of the disease given by Goldberger and Wheeler (9).) Treatment was then started with large doses of a solution of riboflavin<sup>3</sup> given in gelatine capsules by mouth.

The significant details in regard to each of the experimental animals are as follows:

##### *Dog No. 316*

May 15, 1936: Begins diet 123 in good condition.

May 19: Weighs 7.7 kilos.

July 7: First signs of blacktongue—redness of mucosa of cheeks and injection of mucosa of floor of mouth.

July 9, 10, 11: No food eaten.

<sup>3</sup> The material used was a 0.05 percent solution furnished in sealed ampuls of 2 cc through the courtesy of Mr. John Hart, of the Winthrop Chemical Co., Inc., and was designated as L. F. No. 356. This material was diluted with distilled water and tested in daily doses equivalent to 10 gamma of riboflavin on rats with symptoms of riboflavin deficiency. There was a rapid gain in weight and disappearance of symptoms.

July 13: Red, bandlike lesion on the mucosa of each side of upper lip. Mucosa of cheeks and floor of mouth reddened. Margins of tongue reddened. Given 6 mg L. F. 356 by mouth.

July 14: Weighs 5.5 kilos. Given 4 mg L. F. 356 by mouth.

July 15: No food eaten since the 12th.

July 17: Symptoms of blacktongue have receded and mouth now shows only small red spot on the mucosa of the right side of the upper lip and reddened areas on the mucosa of each cheek.

July 18: Mouth appears normal.

July 21: Weighs 6 kilos.

July 23: Reddened patches have reappeared on mucosa of cheeks, and the mucosa of the floor of the mouth is streakily injected.

July 24: Reddened patches on mucosa of each side of upper lip. Mucosa of cheeks has red granular appearance. Mucosa of floor of mouth is very red.

July 26: Passed fresh blood by bowel.

July 27: Considerable bleeding by bowel. Died apparently from hemorrhage due to intestinal blacktongue lesion.

*Summary.*—Given 10 mg L. F. 356 in 2 days. One short recession of symptoms. Such recessions frequently occur in blacktongue with no treatment of any kind, and this one in all probability had nothing to do with the administration of riboflavin. Dead in 14 days from beginning of treatment.

#### *Dog No. 318*

May 15, 1936: Begins diet 123 in good condition.

May 19: Weighs 7.8 kilos.

June 16: Weighs 8.3 kilos.

June 20: First signs of blacktongue—a reddened streak on the mucosa of each side of the upper lip. The mucosa of the cheeks and of the floor of the mouth is very red.

June 22: Attack of blacktongue well developed with beginning pseudomembrane formation over reddened, bandlike lesion on mucosa of each side of upper lip and on mucosa of cheeks. Given 4 mg of L. F. no. 356.

June 23: Mouth lesions more extensive. Given 4 mg L. F. no. 356.

June 24: Condition is much worse. There is extensive pseudomembrane formation on mucosa of upper lip and cheeks. Mucosa of the floor of the mouth and the ventral surface of the tongue show superficial necrosis.

June 26: Moribund.

June 27: Found dead. No food eaten since June 20.

*Summary.*—Given a total of 8 mg of L. F. No. 356 in 2 days and died in 5 days from the beginning of treatment.

#### *Dog No. 322*

May 15, 1936: Began diet 123 in good condition.

May 19: Weighs 11.8 kilos.

June 16: Weighs 11.6 kilos. First signs of blacktongue—a streaky injection of the mucosa of the upper lip, floor of mouth, and cheeks.

June 20: Denuded, reddened areas on mucosa on each side of upper lip. Mucosa of cheeks has red denuded appearance. Mucosa of floor of mouth intensely reddened. Small superficially ulcerated areas on frenulum and ventral surface of tongue. Given 2 mg of L. F. 356.

June 21: Condition unimproved. Mucosa of upper lip and cheeks covered by pseudomembrane. Mucosa of floor of mouth continues intensely reddened. Given 4 mg L. F. 356.

June 22: Condition of mouth definitely worse, with deep ulcers on mucosa of each side of upper lip. Given 2 mg L. F. 356.

June 23: Condition appears to be hopeless. Moribund.

June 24: Found dead. No food eaten since June 18.

*Summary.*—Given 8 mg L. F. 356 in 3 days. Dead in 4 days from beginning of treatment.

*Dog No. 329*

May 15, 1936: Began diet 123 in good condition.

May 19: Weighs 7.4 kilos.

July 14: Weighs 7.8 kilos.

July 15: First signs of blacktongue—a diffuse reddening of the mucosa of cheeks, upper lip, and floor of mouth.

July 20: Symptoms of blacktongue have steadily progressed and there is now a continuous red, bandlike lesion on the mucosa on each side of the upper lip with beginning pseudomembrane formation. Mucosa of cheeks has a red, granular appearance and is covered by thin pseudomembrane. Mucosa of floor of mouth is dusky red and there is a small ulcer near the frenulum of the tongue. Given 2 doses of 3 mg each of L. F. 356 by mouth.

July 21: Two doses of 3 mg each of L. F. 356 by mouth.

July 22: Given 4 mg L. F. 356 by mouth.

July 23: Has not eaten since July 15. Animal appears unimproved. Buccal mucosa red, and that of upper lip and cheeks still covered by pseudomembrane. Given 6 mg L. F. 356 by mouth.

July 27: Symptoms of blacktongue have receded and there is now only a red streakiness of mucosa of upper lip and cheeks.

Aug. 12: Again shows red, bandlike lesion on mucosa of each side of upper lip, with redness of mucosa of floor of mouth and cheeks.

Aug. 15: Symptoms of blacktongue have again steadily progressed until entire mucosa of upper lip is fiery red and shows beginning pseudomembrane formation. Mucosa of cheeks covered by pseudomembrane. Mucosa of floor of mouth and of margin of tongue is very red. Given 2 doses of 3 mg each of L. F. 356 by mouth.

Aug. 16: Given 4 mg L. F. 356 by mouth.

Aug. 17: Given 2 doses of 3 mg each of L. F. 356 by mouth.

Aug. 18: Symptoms of blacktongue have steadily become worse and animal is now moribund.

Aug. 19: Dead.

*Summary.*—In spite of a total intake of 38 mg L. F. 356 the animal died of acute blacktongue in 30 days from the beginning of treatment.

*Dog No. 336*

May 15, 1936: Begins diet 123 in good condition.

May 19: Weighs 8 kilos.

July 21: Weighs 8.2 kilos. First signs of an attack of blacktongue—faint red streak on mucosa of each side of upper lip. Floor of mouth streakily injected.

July 27: Symptoms of blacktongue have steadily progressed and there is now an intensely reddened band on each side of the upper lip which is covered by pseudomembrane. Mucosa of cheek also reddened and covered by pseudomembrane. Given 4 mg L. F. 356 at 10 a. m. and 4 mg of L. F. 356 at 4 p. m., by mouth.

July 28: In comatose condition. Died during day. Necropsy shows lesions of advanced blacktongue and secondary bronchopneumonia.

*Summary.*—This animal died too soon after the administration of the riboflavin for the results to be of much significance.

#### SUMMARY

All five of the experimental animals died in 14, 5, 4, 30 days and 1 day from the beginning of treatment with riboflavin, having received a total dosage of 10 mg, 8 mg, 8 mg, 38 mg, and 8 mg, respectively.

#### CONCLUSIONS

Riboflavin in relatively large doses administered by mouth is without therapeutic value in acute blacktongue of dogs. This adds further evidence to the view that riboflavin is distinct from the blacktongue-preventive factor.

TABLE 1.—Composition of basic blacktongue-producing diet no. 123<sup>1</sup>

Article of diet	Quantity	Nutrients		
		Protein	Fat	Carbohydrate
	Grams	Grams	Grams	Grams
Corn meal <sup>2</sup> .....	400	33.6	18.8	296.0
Cowpeas ( <i>Vigna sinensis</i> ) <sup>3</sup> .....	50	10.7	.7	30.4
Casein (purified) <sup>4</sup> .....	60	52.0	.....	.....
Sucrose.....	32	.....	.....	32.0
Cottonseed oil.....	30	.....	30.0	.....
Cod-liver oil.....	15	.....	15.0	.....
Sodium chloride.....	10	.....	.....	.....
Calcium carbonate.....	3	.....	.....	.....
Total nutrients.....	.....	96.3	64.5	358.4
Nutrients per 1,000 calories.....	.....	40.1	26.9	149.3

<sup>1</sup> The corn meal, cowpeas (previously coarsely ground), and salt are stirred into water and cooked in a double boiler of enamelware for about 1½ hours. Then the other ingredients are well stirred in, the total weight being brought to 2,400 grams with water (so that 1 gram represents 1 calorie), and this finished mixture is served to the dog ad libitum.

<sup>2</sup> Whole maize meal (white) sifted as for human consumption.

<sup>3</sup> The variety known as the California black-eyed pea.

<sup>4</sup> Commercial casein leached for a week in daily changes of acidulated water.

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## LEPROSY IN ARGENTINA

According to a report dated December 18, 1936, from the American Consul General at Buenos Aires, it is estimated that Argentina has between 8,000 and 15,000 lepers. It is stated that leprosy has been gradually increasing there for the past 30 years, while plans for its control, although made, have not been carried into effect.

Legislation passed in 1926 provides for—

1. Obligatory reporting of all cases known to medical authorities or to private citizens.
2. Medical assistance and supervision of all leprosy cases under the direction of the National Department of Hygiene.
3. A census of the leper population to be regularly prepared and reported.
4. Isolation of all lepers in asylum-colonies to be constructed with funds derived from the tax on perfumes and patent medicines.

This law has, so far, not been made effective, largely because of the erroneous notion on the part of citizens that the foundation of leper colonies would constitute a grave danger to the health of surrounding inhabitants; and as a result, bitter opposition was encountered whenever efforts were made to acquire sites for leper asylums.

An unofficial organization, the "Patronato de Leprosos" was formed in 1930, and, with such funds as it has been able to collect, has started a laboratory for the study of leprosy at the Muñiz Hospital in Buenos Aires, where about 200 lepers are interned. This organization is being constantly implored by lepers to provide them institutional care, but this is impossible because of lack of facilities, there being but about 400 beds available in the whole country. Many are sent to the federal capital from interior regions when there is no means of caring for them.

In commenting on the conditions President Justo said, on October 28, 1935:

Public repulsion has prevented the concentrating of lepers in the adequate establishments recommended by modern science. The public is opposed to this measure because of the pretext of danger of infection. They erroneously suppose that establishments destined to shelter lepers constitute an imminent danger to the surrounding inhabitants, but this fear—paradoxical as it may seem—brings as a consequence the complete freedom of the sick persons and greatly facilitates and spreads infection; since the patient cannot go to a hospital or sanatorium—there being only one very small institution which admits them—they have no other recourse than to continue living in contact with the healthy population with the grave consequences which that implies. \* \* \* This will soon be possible to avoid when the much-resisted leper colonies become a reality. The principal provisions of law no. 11,359 have not been fulfilled for lack of a way to carry them out. \* \* \* Let us not permit the continuance in our country of this sad free circulation of lepers in constantly increasing numbers—and this illness no longer exists in the majority of nations—only because of prejudices brought about by the measures designed to solve the alarming problem. \* \* \* The only

means of wiping out the scourge is the isolation of the patients. When this becomes possible through asylum-colonies, a work which the executive power will prosecute with all energy, and when national sentiment is so guided, we will be able to say that this easily avoidable disease has been wiped out.

The national hygiene department has plans for seven leper colonies distributed throughout the country in zones where leprosy is most prevalent.

According to Dr. Pedro L. Baliña, one of Argentina's leprologists, one of these colonies has been constructed on the Island of Cerrito on the Paraná River. It lacks only a part of its equipment to place it in operation, but political influences have prevented its opening, on the plea that it will become a national rather than a provincial asylum. Dr. Baliña states that there are but three places in the country that can offer lepers relief at present, the Muñiz Hospital, a general hospital in Buenos Aires, with a section devoted to leprosy having accommodations for 200 patients, the Carrasco Hospital in Rosario, with beds for 150, and a small asylum in the Province of Córdoba, able to care for 50 to 60 patients.

It is stated that funds for the construction of leper asylums and colonies are now available, and that in the near future the situation with regard to the control of leprosy and the care of lepers in Argentina should be completely changed.

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### RELIABILITY OF ESTIMATES OF RAT INFESTATION OF VESSELS BY INSPECTION

The determination by quarantine officers of whether or not a vessel shall be fumigated is based largely upon the presence (and degree of infestation) or absence of rats on board. Through international agreement, forms for deratization and deratization exemption certificates have come into use, and these forms, when properly and competently executed, are now almost universally accepted. The certificates provide space for recording the amount of rat infestation of the vessel; and it is the policy of the Public Health Service to require its quarantine officers to issue only completed certificates and to insist that those presented to them be completely filled in before acceptance. In order that the statements in the certificates regarding rat infestation be reliable, it is, of course, extremely important that the inspectors be competent and capable of making accurate estimates on the basis of inspection. It is especially important that the estimates be sufficiently accurate to differentiate between slight and moderate infestation.

As an indication of the degree of accuracy in estimating by inspection the amount of rat infestation of vessels that may be attained by competent and experienced inspectors, the following figures are pre-

sented, which are taken from the December report of the fumigation division of the United States Quarantine Station at Rosebank, Staten Island, N. Y.:

Total number of vessels inspected for rat infestation.....	215
Number of passenger vessels.....	21
Number of cargo vessels.....	180
Number of tankers.....	14
Estimated number of rats on inspection.....	318
Number of rats secured by fumigation.....	330

While 14 of these vessels were tankers and many of the others were of substantial ratproof construction, the figures give evidence of the high degree of skill in interpreting the signs of rat infestation that can be acquired by experience and practice.

### MENTAL DEFECTIVES AND EPILEPTICS IN INSTITUTIONS IN THE UNITED STATES, 1935

The Bureau of the Census has recently issued a statement presenting a summary of the results of the 1935 census of mental defectives and epileptics in institutions primarily for these classes, from which the accompanying tables and statements are taken. The figures are preliminary and subject to possible correction.

*Movement of patient population.*—Table 1 shows, for 1935, the movement of the patient population in institutions for mental defectives and epileptics, that is, the number of patients at the beginning of the year, the number of admissions and of separations during the year, and the number present at the end of the year. Separate figures are given for State, city, and private institutions.

The figures presented in this table show that, in 1935, State institutions cared for a very large proportion of the total mental defectives and epileptics in special institutions for these classes. The fact that the proportion of the total patients on the books of State institutions at the beginning and at the end of the year, respectively, was so much larger than the proportion admitted to or leaving State institutions during the year indicates that, as a rule, the patients remained in State institutions much longer than in either city or private institutions. Probably incurables form a much larger proportion of the patients admitted to State institutions than of those admitted to city and private institutions.

*Significance of the data.*—These statistics are valuable chiefly in showing what provision has been made for the treatment of mental defectives and epileptics in special institutions, the types of mentally defective and epileptic persons being cared for, and the relative impor-

tance of the different types. It should be clearly recognized, however, that statistics relating to patients in institutions primarily for mental defectives and epileptics do not furnish even an approximate measure of the total number of such patients, either in the country as a whole or in the several States. The institutions established for the care of mental defectives and epileptics contain only a small part of the total number of such persons. The vast majority of them are not confined in institutions but live at large in the community. Many are inmates of prisons and reformatories, others are in almshouses, and some are in hospitals for mental patients.

TABLE 1.—*Movement of patient population in institutions for mental defectives and epileptics, by class of institution, 1935*

Class of patients	Number			Percent of total			
	Total	State institutions	City institutions	Private institutions	State institutions	City institutions	Private institutions
Patients on books at beginning of year.....	108,684	103,227	1,106	4,351	95.0	1.0	4.0
Male.....	56,674	53,851	592	2,231	95.0	1.0	3.9
Female.....	52,010	49,376	514	2,120	94.9	1.0	4.1
In institution.....	95,101	89,760	1,108	4,238	94.4	1.2	4.5
On parole or otherwise absent.....	13,583	13,467	3	113	99.1	-----	.8
Admissions during year.....	13,152	12,067	425	660	91.8	3.2	5.0
Male.....	7,467	6,851	241	345	92.2	3.2	4.6
Female.....	5,685	5,186	184	315	91.2	3.2	5.5
First admissions <sup>1</sup> .....	11,243	10,299	349	595	91.6	3.1	5.3
Readmissions.....	887	765	76	46	86.2	8.6	5.2
Transfers from other institutions for mental defectives and epileptics.....	1,022	1,003	-----	19	98.1	-----	1.9
Separations during year.....	9,868	8,564	707	597	86.8	7.2	6.0
Male.....	5,586	4,873	402	311	87.2	7.2	5.6
Female.....	4,282	3,691	305	286	86.2	7.1	6.7
Discharges.....	5,539	4,911	185	443	88.7	3.3	8.0
Transfers to other institutions for mental defectives and epileptics.....	1,559	1,018	473	68	65.3	30.3	4.4
Deaths in institution.....	2,679	2,547	49	83	95.1	1.8	3.1
Deaths while on parole.....	91	88	-----	3	-----	-----	-----
Patients on books at end of year.....	111,968	106,730	824	4,414	95.3	.7	3.9
Male.....	58,555	55,859	431	2,265	95.4	.7	2.9
Female.....	53,413	50,871	393	2,149	95.2	.7	4.0
In institution.....	97,439	92,329	821	4,289	94.8	.8	4.4
On parole or otherwise absent.....	14,529	14,401	3	125	99.1	-----	.9

<sup>1</sup> The term "first admissions" is here used to designate persons admitted to institutions for mental defectives and epileptics for the first time. Of the 11,243 first admissions to such institutions during 1935, 10,299, or 91.6 percent, were admissions to State institutions. This figure does not agree with the total of the figures in tables 4 and 5 for the reason that they include 450 first admissions of patients who are neither mental defectives nor epileptics and, therefore, are not included in tables 4 and 5. Also, the 1,603 who are both mental defectives and epileptics are included in the totals of both of the latter tables.

*Mental status.*—According to the classification of mental defectives by mental status here used, an "idiot" is a mentally defective person having a mental age of not more than 35 months, or, if a child, an intelligence quotient of less than 25; an "imbecile" has a mental age of between 36 and 83 months, inclusive, or an intelligence quotient between 25 and 49; and a "moron" has a mental age of between 84 and 143 months, inclusive, or an intelligence quotient between 50 and 74.

As the mental defectives admitted to institutions consist largely of those who are unable to make adequate social adjustments, the proportions of idiots and of imbeciles among the first admissions of mental defectives are probably much higher than among the total mental defectives.

TABLE 4.—*First admissions of mental defectives to State institutions, by sex and mental status, 1935*

Mental status	Number			Percent distribution		
	Total	Male	Female	Total	Male	Female
Total.....	8,954	4,957	3,997	100.0	100.0	100.0
Moron.....	4,240	2,302	1,938	47.4	46.4	48.5
Imbecile.....	2,810	1,566	1,244	31.4	31.6	31.1
Idiot.....	1,645	886	759	18.4	18.9	17.7
Unclassified.....	259	153	106	2.9	3.1	2.7
Both mentally defective and epileptic.....	1,603	906	697	17.9	18.3	17.4

*Type of epilepsy.*—The classification of epilepsy as symptomatic and idiopathic is that of the American Psychiatric Association, “symptomatic” signifying cases in which the attacks result from a definite underlying disease and “idiopathic” signifying attacks resulting from unknown causes. It may be noted that epileptics of the idiopathic type far outnumbered those of the symptomatic type among first admissions to State institutions, and that a large majority of the first admissions were both epileptic and mentally defective.

TABLE 5.—*First admissions of epileptics to State institutions, by sex and type of epilepsy, 1935*

Type of epilepsy	Number			Percent distribution		
	Total	Male	Female	Total	Male	Female
Total.....	2,498	1,489	1,009	100.0	100.0	100.0
Symptomatic.....	682	436	246	27.3	29.3	24.4
Idiopathic.....	1,542	886	656	61.7	59.5	65.0
Unclassified.....	274	167	107	11.0	11.2	10.6
Both epileptic and mentally defective.....	1,603	906	697	64.2	60.8	69.1

## DEATHS DURING WEEK ENDED FEB. 6, 1937

(From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce)

	Week ended Feb. 6, 1937	Correspond- ing week, 1936
Data from 85 large cities of the United States:		
Total deaths.....	10,319	10,682
Average for 3 prior years.....	9,040	-----
Total deaths, first 5 weeks of year.....	53,920	47,197
Deaths under 1 year of age.....	636	616
Average for 3 prior years.....	611	-----
Deaths under 1 year of age, first 5 weeks of year.....	3,229	2,823
Data from industrial insurance companies:		
Policies in force.....	60,123,600	67,857,697
Number of death claims.....	14,233	14,405
Death claims per 1,000 policies in force, annual rate.....	11.8	11.1
Death claims per 1,000 policies, first 5 weeks of year, annual rate.....	11.7	11.0

# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers

Reports for Weeks Ended Feb. 13, 1937, and Feb. 15, 1936

*Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Feb. 13, 1937, and Feb. 15, 1936*

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Feb. 13, 1937	Week ended Feb. 15, 1936	Week ended Feb. 13, 1937	Week ended Feb. 15, 1936	Week ended Feb. 13, 1937	Week ended Feb. 15, 1936	Week ended Feb. 13, 1937	Week ended Feb. 15, 1936
<b>New England States:</b>								
Maine.....	4	1	490	5	23	324	0	0
New Hampshire.....			57	15	44	30	0	0
Vermont.....					1	271	1	0
Massachusetts.....	6	9			1,006	706	3	6
Rhode Island.....	1	1			179	58	0	9
Connecticut <sup>1</sup> .....	1		438	12	340	122	0	0
<b>Middle Atlantic States:</b>								
New York.....	34	37	150	160	288	1,807	12	20
New Jersey.....	13	10	54	17	464	70	3	8
Pennsylvania.....	44	48			145	640	14	9
<b>East North Central States:</b>								
Ohio.....	20	53	1,298	95	21	216	8	11
Indiana.....	5	36	172	45	4	9	4	8
Illinois.....	36	51	239	39	37	19	12	9
Michigan.....	13	4	24	8	58	27	4	1
Wisconsin.....	1	1	632	44	22	43	4	1
<b>West North Central States:</b>								
Minnesota.....	1	2	14	1	20	195	1	8
Iowa.....	6	7	90	4	2	14	1	12
Missouri.....	10	31	1,573	308	4	16	3	10
North Dakota.....	1	1	207	2		4	6	0
South Dakota.....		1	29		1	3	1	1
Nebraska.....	4	2	7		21	6	0	5
Kansas.....	5	15	698	47	6	15	2	0
<b>South Atlantic States:</b>								
Delaware.....	1		6		102	71	1	0
Maryland <sup>1</sup> .....	12	11	594	21	385	214	6	7
District of Columbia.....	6	18	53	3	32	21	0	4
Virginia.....	16	17			163	95	10	15
West Virginia.....	20	17	1,510	88	8	8	4	2
North Carolina <sup>1</sup> .....	24	12	115	234	61	23	4	2
South Carolina.....	8	2	1,135	1,538	32	13	0	10
Georgia <sup>1</sup> .....	12	11	827	649			1	3
Florida.....	5	4	5	18	4	3	10	0

See footnotes at end of table.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Feb. 13, 1937, and Feb. 15, 1936—Continued

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Feb. 13, 1937	Week ended Feb. 15, 1936	Week ended Feb. 13, 1937	Week ended Feb. 15, 1936	Week ended Feb. 13, 1937	Week ended Feb. 15, 1936	Week ended Feb. 13, 1937	Week ended Feb. 15, 1936
<b>East South Central States:</b>								
Kentucky.....	6	15	376	62	26	68	6	13
Tennessee.....	16	9	837	245	182	15	8	16
Alabama <sup>1</sup> .....	8	15	920	686	8	30	4	3
Mississippi <sup>2</sup> .....	4	3					1	2
<b>West South Central States:</b>								
Arkansas.....	5	9	1,048	57		2	15	2
Louisiana.....	7	25	228	48	1	40	0	3
Oklahoma <sup>4</sup> .....	4	8	1,342	207	15	3	3	17
Texas.....	51	69	3,624	370	330	93	9	8
<b>Mountain States:</b>								
Montana.....	7	2	403	18	7	56	2	0
Idaho.....			134	6	88	14	0	1
Wyoming.....						3	0	2
Colorado.....	1	4				8	0	6
New Mexico.....		6	406	8	29	1	0	0
Arizona.....	3		969	151	156	22	3	3
Utah <sup>5</sup> .....	1				24	4	0	1
<b>Pacific States:</b>								
Washington.....	2	1	11		61	174	3	1
Oregon.....	1		770	67	8	767	0	2
California.....	25	28	6,087	3,890	89	1,529	17	10
<b>Total.....</b>	<b>450</b>	<b>596</b>	<b>27,281</b>	<b>9,077</b>	<b>4,512</b>	<b>7,872</b>	<b>178</b>	<b>224</b>
<b>First 6 weeks of year.....</b>	<b>3,547</b>	<b>4,164</b>	<b>167,901</b>	<b>24,794</b>	<b>26,130</b>	<b>36,334</b>	<b>857</b>	<b>1,115</b>

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Feb. 13, 1937	Week ended Feb. 15, 1936	Week ended Feb. 13, 1937	Week ended Feb. 15, 1936	Week ended Feb. 13, 1937	Week ended Feb. 15, 1936	Week ended Feb. 13, 1937	Week ended Feb. 15, 1936
<b>New England States:</b>								
Maine.....	0	0	25	14	0	0	1	0
New Hampshire.....	0	0	12	8	0	0	0	0
Vermont.....	0	0	16	31	0	0	0	5
Massachusetts.....	1	0	235	290	0	0	0	5
Rhode Island.....	0	0	63	19	0	0	0	0
Connecticut <sup>1</sup> .....	0	0	97	67	0	0	1	0
<b>Middle Atlantic States:</b>								
New York.....	1	0	746	905	5	0	5	4
New Jersey.....	0	0	164	287	0	0	4	1
Pennsylvania.....	0	0	834	525	0	0	8	11
<b>East North Central States:</b>								
Ohio.....	1	1	313	473	1	1	3	2
Indiana.....	0	0	160	438	2	0	0	2
Illinois.....	0	1	622	668	11	14	3	3
Michigan.....	1	1	733	315	3	3	1	1
Wisconsin.....	0	0	361	454	2	25	0	1
<b>West North Central States:</b>								
Minnesota.....	0	0	136	361	8	4	0	1
Iowa.....	1	0	291	131	33	8	1	1
Missouri.....	0	1	288	186	98	4	2	12
North Dakota.....	0	0	73	74	57	1	1	0
South Dakota.....	1	0	69	54	6	12	0	0
Nebraska.....	0	0	108	184	5	20	1	1
Kansas.....	1	1	314	255	45	22	0	1
<b>South Atlantic States:</b>								
Delaware.....	0	0	2	6	0	0	0	1
Maryland <sup>1</sup> .....	0	0	49	90	0	0	0	1
District of Columbia.....	0	0	17	21	0	0	0	1
Virginia.....	0	0	31	43	1	0	4	6
West Virginia.....	0	0	49	35	0	0	1	2
North Carolina <sup>1</sup> .....	1	0	57	30	0	1	2	7
South Carolina.....	0	0	6	4	0	0	2	0
Georgia <sup>1</sup> .....	0	0	12	25	0	0	3	0
Florida.....	3	0	7	6	0	0	2	0

See footnotes at end of table.

*Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Feb. 13, 1937, and Feb. 15, 1936—Continued*

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Feb. 13, 1937	Week ended Feb. 15, 1936	Week ended Feb. 13, 1937	Week ended Feb. 15, 1936	Week ended Feb. 13, 1937	Week ended Feb. 15, 1936	Week ended Feb. 13, 1937	Week ended Feb. 15, 1936
<b>East South Central States:</b>								
Kentucky.....	1	4	24	54	0	0	3	3
Tennessee.....	1	0	27	43	0	0	6	0
Alabama <sup>1</sup> .....	1	1	16	19	5	0	1	1
Mississippi <sup>2</sup> .....	1	0	8	13	0	0	9	2
<b>West South Central States:</b>								
Arkansas.....	3	0	17	14	1	0	1	1
Louisiana.....	0	2	10	25	0	0	5	1
Oklahoma <sup>4</sup> .....	1	0	27	35	1	1	3	3
Texas.....	3	0	109	105	5	1	8	5
<b>Mountain States:</b>								
Montana.....	0	0	54	84	23	8	1	0
Idaho.....	0	1	0	59	3	10	0	1
Wyoming.....	0	0	12	119	4	4	0	0
Colorado.....	0	0	42	143	0	20	0	0
New Mexico.....	0	0	25	91	0	0	2	3
Arizona.....	0	1	28	24	6	0	0	0
Utah <sup>3</sup> .....	0	0	16	85	0	0	0	0
<b>Pacific States:</b>								
Washington.....	0	1	62	89	16	17	1	0
Oregon.....	0	1	20	43	11	0	2	1
California.....	0	9	274	395	25	1	4	3
<b>Total.....</b>	<b>22</b>	<b>25</b>	<b>6,662</b>	<b>7,444</b>	<b>371</b>	<b>177</b>	<b>87</b>	<b>88</b>
<b>First 6 weeks of year.....</b>	<b>145</b>	<b>116</b>	<b>36,462</b>	<b>44,100</b>	<b>1,828</b>	<b>1,259</b>	<b>690</b>	<b>619</b>

<sup>1</sup> Typhus fever, week ended Feb. 13, 1937, 9 cases, as follows: Connecticut, 1; North Carolina, 3; Georgia, 4; Alabama, 1.

<sup>2</sup> New York City only.

<sup>3</sup> Week ended earlier than Saturday.

<sup>4</sup> Exclusive of Oklahoma City and Tulsa.

### SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of cases reported monthly by States is published weekly and covers only those States from which reports are received during the current week:

State	Menin- gococ- cus menin- gitis	Diph- theria	Influ- enza	Mala- ria	Meas- les	Pol- agra	Polio- mye- litis	Scarlet fever	Small- pox	Typh- oid fever
<i>December 1936</i>										
Arizona.....	3	27	428	1	227	1	1	56	0	9
Wyoming.....		1			3		0	44	6	3
<i>January 1937</i>										
District of Columbia.....	14	94	398		106		1	83	0	2
Missouri.....	16	123	6,711	4	36		3	1,137	355	26
Nebraska.....	6	2	322		13		2	284	27	4
New Mexico.....	3	13	1,360	1	103	1	2	107	0	18
South Carolina.....		153	3,460	530	144	70	1	39	0	10
West Virginia.....	20	55	2,597		84		4	269	0	13
Wyoming.....		7	340		3		0	72	23	6



## Reports from States—Continued

State	Syphilis		Gonorrhea	
	Cases reported during month	Monthly case rates per 10,000 population	Cases reported during month	Monthly case rates per 10,000 population
North Carolina.....	1,210	8.54	389	1.14
North Dakota.....	10	.14	37	.53
Ohio.....	1,171	1.75	549	.82
Oklahoma <sup>2</sup> .....	258	1.03	99	.39
Oregon.....	78	.77	157	1.56
Pennsylvania <sup>4</sup> .....	236	1.23	134	.13
Rhode Island.....	88	1.29	66	.97
South Carolina <sup>2</sup> .....	208	1.03	290	1.44
South Dakota.....	83	1.23	33	.49
Tennessee.....	410	1.41	222	.76
Texas.....	340	.56	202	.33
Utah <sup>2</sup> .....				
Vermont.....	20	.53	35	.93
Virginia.....	394	1.49	192	.73
Washington.....	296	1.81	323	1.98
West Virginia.....	230	1.27	89	.49
Wisconsin <sup>4</sup> .....	19	.07	101	.35
Wyoming <sup>4</sup> .....				
Total.....	23,314	1.90	13,815	1.13

## Reports from cities of 200,000 population or over

Akron, Ohio.....	27	0.99	12	0.44
Atlanta, Ga. <sup>1</sup> .....				
Baltimore, Md. <sup>1</sup> .....				
Birmingham, Ala.....	120	4.25	72	2.55
Boston, Mass.....	172	2.18	223	2.82
Buffalo, N. Y.....	214	3.61	159	2.60
Chicago, Ill.....	786	2.20	627	1.76
Cincinnati, Ohio.....	91	1.95	55	1.18
Cleveland, Ohio.....	186	2.00	95	1.02
Columbus, Ohio.....	89	2.91	23	.75
Dallas, Tex.....	89	3.07	74	2.56
Dayton, Ohio <sup>1</sup> .....				
Denver, Colo.....	47	1.58	40	1.35
Detroit, Mich. <sup>1</sup> .....				
Houston, Tex. <sup>4</sup> .....	153	4.57	56	1.67
Indianapolis, Ind.....	21	.56	18	.48
Jersey City, N. J. <sup>1</sup> .....				
Kansas City, Mo.....	26	.62	4	.09
Los Angeles, Calif. <sup>1</sup> .....				
Louisville, Ky. <sup>1</sup> .....				
Memphis, Tenn.....	186	6.97	52	1.96
Milwaukee, Wis. <sup>1</sup> .....				
Minneapolis, Minn.....	71	1.46	124	2.55
Newark, N. J.....	196	4.23	97	2.09
New Orleans, La. <sup>2</sup> .....				
New York, N. Y.....	5,675	7.77	1,305	1.79
Oakland, Calif.....	45	1.48	42	1.39
Omaha, Nebr.....	12	.54	7	.22
Philadelphia, Pa.....	250	1.26	75	.38
Pittsburgh, Pa. <sup>1</sup> .....				
Portland, Oreg. <sup>1</sup> .....				
Providence, R. I.....	49	1.89	47	1.81
Rochester, N. Y.....	43	1.28	55	1.63
St. Louis, Mo.....	171	2.05	121	1.45
St. Paul, Minn.....	27	.96	29	1.03
San Antonio, Tex. <sup>2</sup> .....				
San Francisco, Calif.....	152	2.27	147	2.19
Seattle, Wash.....	144	3.79	184	4.85
Syracuse, N. Y.....	100	4.59	58	2.66
Toledo, Ohio.....	54	1.77	23	.76
Washington, D. C. <sup>1</sup> .....	131	2.64	107	2.15

<sup>1</sup> No report for current month.

<sup>2</sup> Incomplete.

<sup>3</sup> Not reporting.

<sup>4</sup> Includes only those cases that enter the clinics conducted by the State department of health.

<sup>5</sup> Only cases of syphilis in the infectious stage are reported.

<sup>6</sup> Reported by the Jefferson Davis Hospital; physicians are not required to report venereal diseases.

<sup>7</sup> Reported by the Social Hygiene Clinic.

## WEEKLY REPORTS FROM CITIES

City reports for week ended Feb. 6, 1937

This table summarizes the reports received weekly from a selected list of 140 cities for the purpose of showing a cross section of the current urban incidence of the communicable diseases listed in the table. Weekly reports are received from about 700 cities, from which the data are tabulated and filed for reference.

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Small-pox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
<b>Maine:</b>											
Portland	0	9	1	0	5	3	0	0	0	5	28
<b>New Hampshire:</b>											
Concord	0		0	0	0	1	0	0	0	0	7
Manchester	0		0	0	1	4	0	0	0	0	13
Nashua	0			0		0			0	0	
<b>Vermont:</b>											
Barre	0		1	0	0	0	0	1	0	3	8
Burlington	0		0	0	0	64	0	0	0	0	19
Rutland	0		0	1	1	0	0	0	0	0	3
<b>Massachusetts:</b>											
Boston	1		5	8	60	54	0	12	0	152	310
Fall River	0		2	8	6	3	0	0	0	0	44
Springfield	0		0	37	1	3	0	1	0	10	35
Worcester	0		0	100	13	2	0	3	0	23	63
<b>Rhode Island:</b>											
Pawtucket	0		0	7	0	1	0	0	0	3	25
Providence	1	4	2	174	8	37	0	4	0	19	73
<b>Connecticut:</b>											
Bridgeport	0	13	3	25	2	26	0	0	0	3	45
Hartford											
New Haven	0	43	1	0	2	2	0	0	0	1	60
<b>New York:</b>											
Buffalo	1	7	6	46	26	21	0	9	0	33	175
New York	36	119	14	51	152	286	0	96	3	74	1,558
Rochester	0		1	1	17	6	0	1	0	15	89
Syracuse	0		1	25	11	53	0	1	0	32	72
<b>New Jersey:</b>											
Camden	0	3	3	0	5	14	0	0	0	2	32
Newark	0	18	0	297	14	9	0	4	0	29	116
Trenton	0	16	2	0	5	1	0	1	0	3	44
<b>Pennsylvania:</b>											
Philadelphia	8	87	24	10	71	199	0	35	1	104	605
Pittsburgh	1	43	25	8	44	41	0	8	0	49	263
Reading	0		5	2	1	12	0	1	0	25	36
Scranton	2			0		15	0	0	0	1	
<b>Ohio:</b>											
Cincinnati	0		6	6	24	3	0	10	0	1	158
Cleveland	1	296	11	3	42	48	0	11	0	42	265
Columbus	7	6	6	2	11	7	0	5	0	20	112
Toledo	0	4	2	3	5	5	0	4	0	37	83
<b>Indiana:</b>											
Anderson	0		0	0	6	19	0	0	0	3	16
Fort Wayne	2		2	0	6	5	0	0	0	2	20
Indianapolis	2		1	2	28	29	0	8	0	19	183
Muncie	0	16	2	0	1	2	0	2	0	2	21
South Bend	0		1	0	8	3	0	1	0	1	30
Terre Haute	2		0	1	0	3	0	0	0	0	23
<b>Illinois:</b>											
Alton	0		1	0	4	6	0	1	0	1	16
Chicago	7	49	10	12	61	212	1	44	1	75	777
Elgin	0		0	0	1	0	0	0	0	10	9
Moline	0		0	0	4	0	0	0	0	13	15
Springfield	2		2	0	14	5	0	0	0	4	31
<b>Michigan:</b>											
Detroit	7	12	7	4	41	328	0	12	4	71	277
Flint	2		0	3	5	12	0	0	1	0	30
Grand Rapids	0	9	1	7	3	9	1	2	0	10	50
<b>Wisconsin:</b>											
Kenosha	0	7	0	0	0	1	0	1	0	1	7
Madison	0		0	2	1	5	0	2	0	8	20
Milwaukee	0		4	3	11	46	0	4	0	37	129
Racine	0		0	0	2	12	0	1	0	1	14
Superior	0		0	0	0	4	0	0	0	8	13
<b>Minnesota:</b>											
Duluth	0		0	0	6	14	0	3	0	0	22
Minneapolis	0		7	11	13	19	0	2	0	20	114
St. Paul	0	3	3	3	10	8	0	5	0	28	84

## City reports for week ended Feb. 6, 1937—Continued

State and city	Diph- theria cases	Influenza		Meas- sles cases	Pneu- monia deaths	Scar- let fever cases	Small- pox cases	Tuber- culosis deaths	Ty- phoid fever cases	Whoop- ing cough cases	Deaths, all causes
		Cases	Deaths								
<b>Iowa:</b>											
Cedar Rapids.....	0			0		2	0		0	0	
Davenport.....	0			0		1	0		0	0	
Des Moines.....	2	18		0		24	0		0	0	33
Sloux City.....	0			0		20	0		0	1	
Waterloo.....	0			0		24	0		0	7	
<b>Missouri:</b>											
Kansas City.....	7		8	2	36	57	0	4	0	3	138
St. Joseph.....	0		0	1	6	3	34	0	0	0	32
St. Louis.....	10	9	4	1	25	55	0	5	0	49	267
<b>North Dakota:</b>											
Fargo.....	0		0	0	1	8	2	0	0	0	10
Grand Forks.....	0		0	0	0	6	2		0	0	
Minot.....	0		0	0	0	0	0	1	0	0	5
<b>South Dakota:</b>											
Aberdeen.....	0		0	0	0	2	0		0	0	
Sioux Falls.....	0		0	0	0	0	0		0	0	8
<b>Nebraska:</b>											
Omaha.....	0		1	0	9	10	0	3	0	1	69
<b>Kansas:</b>											
Lawrence.....	0	6	1	0	2	0	0	0	0	0	8
Topeka.....											
Wichita.....	0	18	1	0	9	8	1	0	0	2	38
<b>Delaware:</b>											
Wilmington.....	0		0	55	5	0	0	1	0	0	27
<b>Maryland:</b>											
Baltimore.....	3	79	8	267	44	13	0	9	1	86	274
Cumberland.....	0	1	0	0	2	0	0	0	0	1	10
Frederick.....	0		1	0	0	0	0	0	0	0	2
<b>District of Colum- bia:</b>											
Washington.....	14	42	7	32	40	13	0	14	0	16	231
<b>Virginia:</b>											
Lynchburg.....	0		0	1	1	1	0	0	0	1	18
Norfolk.....	0		2	0	6	2	0	1	0	0	57
Richmond.....	1		2	0	11	7	0	4	0	1	62
Roanoke.....	1		0	60	1	1	0	0	0	0	22
<b>West Virginia:</b>											
Charleston.....	1	5	2	0	14	0	1	0	0	0	37
Wheeling.....	0	4	0	0	1	2	0	3	0	0	26
<b>North Carolina:</b>											
Gastonia.....	0		0	0	0	0	0	0	0	0	
Raleigh.....	0		0	0	0	0	0	0	0	0	13
Wilmington.....	0		0	0	1	0	0	0	0	6	8
Winston-Salem.....	0	4	0	1	4	1	0	0	0	1	19
<b>South Carolina:</b>											
Charleston.....	0	451	0	1	7	3	0	1	2	0	21
Columbia.....											
Florence.....	0		0	0	0	1	0	0	0	0	7
Greenville.....	0		0	0	1	1	0	0	0	0	10
<b>Georgia:</b>											
Atlanta.....	3	378	9	0	13	10	0	2	1	0	97
Brunswick.....	0		0	0	0	0	0	0	0	0	3
Savannah.....	1	72	1	0	2	0	0	4	0	5	36
<b>Florida:</b>											
Miami.....	1	1	0	0	3	1	0	4	0	0	34
Tampa.....	4	1	0	0	0	1	0	0	0	0	18
<b>Kentucky:</b>											
Ashland.....											
Covington.....	1	11	0	0	3	2	0	0	0	0	18
Lexington.....	0	15	0	2	5	0	0	1	0	2	19
<b>Tennessee:</b>											
Knoxville.....	5	63	4	0	6	0	0	2	0	3	45
Memphis.....	1		9	1	11	6	0	9	1	10	112
Nashville.....	1		3	0	15	1	0	1	0	0	66
<b>Alabama:</b>											
Birmingham.....	0	135	9	0	7	1	0	4	0	10	68
Mobile.....	3	2	1	0	1	1	0	0	0	0	15
Montgomery.....	1	4		0		0			0		
<b>Arkansas:</b>											
Fort Smith.....	0			0		3	0		0	1	
Little Rock.....	0	11	0	0	6	1	0	4	0	0	11
<b>Louisiana:</b>											
Lake Charles.....	1	2	0	0	2	1	0	1	1	0	10
New Orleans.....	8	74	15	0	19	3	0	15	3	0	175
Shreveport.....	0		2	3	16	0	0	2	0	0	60

City reports for week ended Feb. 6, 1937—Continued

State and city	Diph- theria cases	Influenza		Mea- sles cases	Pneu- monia deaths	Scar- let fever cases	Small- pox cases	Tuber- culosis deaths	Ty- phoid fever cases	Whoop- ing cough cases	Deaths, all causes
		Cases	Deaths								
<b>Oklahoma:</b>											
Muskogee.....	0			0		2	0		0	0	
Oklahoma City.....	1	30	1	0	11	3	0	0	0	0	62
<b>Texas:</b>											
Dallas.....	4	71	2	7	14	10	0	5	0	2	77
Fort Worth.....	2	9	9	47	11	1	2	3	0	2	52
Galveston.....	0	0	0	0	6	1	0	3	0	0	18
Houston.....	5	2	0	17	1	1	1	7	0	4	117
San Antonio.....	3	3	7	4	18	1	0	12	0	0	101
<b>Montana:</b>											
Billings.....	0		1	0	1	0	0	0	0	0	11
Great Falls.....	0		5	0	19	2	0	0	0	0	21
Helena.....	0	148	0	12	3	6	0	0	0	0	7
Missoula.....	0	56	0	0	1	0	0	0	0	0	4
<b>Idaho:</b>											
Boise.....	0		0	0	3	3	0	0	0	0	12
<b>Colorado:</b>											
Colorado Springs.....	0		1	0	2	5	0	1	1	0	14
Denver.....	3		6	2	9	13	0	6	0	4	97
Pueblo.....	1		1	0	4	5	0	0	0	0	13
<b>New Mexico:</b>											
Albuquerque.....	1		0	0	3	5	0	5	0	0	19
<b>Utah:</b>											
Salt Lake City.....	1		5	14	4	14	0	2	0	8	47
<b>Nevada:</b>											
Reno.....											
<b>Washington:</b>											
Seattle.....	0		6	3	19	6	0	2	0	8	124
Spokane.....	0	4	4	0	7	2	0	0	0	9	35
Tacoma.....	1		6	0	7	1	0	0	0	0	43
<b>Oregon:</b>											
Portland.....	1	97	15	0	19	2	4	4	0	0	132
Salem.....	0	56		0		0			0	0	
<b>California:</b>											
Los Angeles.....	3	933	20	23	76	34	1	20	0	65	443
Sacramento.....	4	685	7	0	21	20	0	3	0	1	67
San Francisco.....	1	497	17	1	33	23	0	18	0	26	275

State and city	Meningococcus meningitis		Poli- omye- litis cases	State and city	Meningococcus meningitis		Poli- omye- litis cases
	Cases	Deaths			Cases	Deaths	
<b>Massachusetts:</b>				<b>Maryland:</b>			
Boston.....	0	1	0	Baltimore.....	3	1	0
<b>New York:</b>				<b>District of Columbia:</b>			
New York.....	9	4	1	Washington.....	6	1	0
Rochester.....	2	0	0	<b>West Virginia:</b>			
<b>New Jersey:</b>				Charleston.....	1	1	0
Newark.....	2	1	0	<b>Georgia:</b>			
<b>Pennsylvania:</b>				Atlanta.....	1	0	0
Pittsburgh.....	3	4	0	<b>Louisiana:</b>			
<b>Ohio:</b>				Lake Charles.....	1	0	0
Cincinnati.....	1	0	0	<b>Texas:</b>			
Cleveland.....	1	1	0	Houston.....	3	1	0
<b>Indiana:</b>				San Antonio.....	0	1	0
Anderson.....	1	1	0	<b>Colorado:</b>			
Indianapolis.....	1	0	0	Denver.....	1	1	0
Terre Haute.....	1	0	0	<b>Washington:</b>			
<b>Illinois:</b>				Seattle.....	1	0	0
Chicago.....	4	1	0	<b>Oregon:</b>			
Springfield.....	1	0	0	Portland.....	0	0	1
<b>Michigan:</b>				<b>California:</b>			
Detroit.....	2	1	0	Los Angeles.....	2	2	0
<b>Missouri:</b>				Sacramento.....	1	0	0
Kansas City.....	1	0	0	San Francisco.....	0	1	0
St. Joseph.....	0	1	0				
St. Louis.....	5	0	0				

Dengue.—Deaths: San Antonio, 1.  
*Encephalitis, epidemic or lethargic.*—Cases: New York, 2; Alton, 1.  
*Pellagra.*—Cases: Baltimore, 1; Charleston, S. C., 4; Savannah, 4; Montgomery, 2.  
*Typhus fever.*—Cases: New York, 1; Wilmington, N. C., 1; Charleston, S. C., 1; Mobile, 1.

## FOREIGN AND INSULAR

### BERMUDA

*Vital statistics—1936.*—The following table shows the number of births and deaths reported in Bermuda during 1936:

Population (census of 1931) <sup>1</sup> :	
White.....	11, 353
Colored.....	16, 436
Live births:	
White.....	216
Colored.....	532
Stillbirths:	
White.....	11
Colored.....	17
Deaths.....	330

<sup>1</sup> It was stated that, at the present time, the ratio of colored to white population is approximately 2 to 1.

In 1935 there were recorded 727 live births and 304 deaths.

### CANADA

*Provinces—Communicable diseases—Week ended January 16, 1937.*—During the week ended January 16, 1937, cases of certain communicable diseases were reported by the Department of Pensions and National Health of Canada as follows:

Disease	Prince Ed- ward Island	Nova Scotia	New Brunsw- wick	Que- bec	On- tario	Mani- toba	Sas- katch- ewan	Al- berta	Brit- ish- Colum- bia	Total
Cerebrospinal meningitis.....			1		3					4
Chicken pox.....	6		5	171	519	48	78	27	95	949
Diphtheria.....	3		5	29	20	2	1	2	2	64
Dysentery.....				1	5				3	9
Erysipelas.....				10	5	8	1	4		28
Influenza.....		10			148	1	209		68	436
Lethargic encephalitis.....					1					1
Measles.....		4	9	354	275	38	575	105	1, 297	2, 657
Mumps.....			9		372	5	20	12	103	621
Paratyphoid fever.....								1		1
Pneumonia.....	2	5			28		8		9	52
Pollomyelitis.....						4			1	5
Scarlet fever.....		11	17	67	169	55	29	92	38	478
Tuberculosis.....	1	16	5	42	66	1		1	13	145
Typhoid fever.....			2	8	1	1	2	3		17
Undulant fever.....				6	1					7
Whooping cough.....		31		124	162	5	25	18	21	386

## LATVIA

*Notifiable diseases—October–December 1936.*—During the months of October, November, and December 1936, cases of certain notifiable diseases were reported in Latvia as follows:

Disease	October	November	December	Disease	October	November	December
Botulism	1		2	Poliomyelitis	4	2	2
Cerebrospinal meningitis	3	3	10	Puerperal septicemia	4	5	10
Diphtheria	30	107	68	Scarlet fever	267	332	330
Erysipelas	43	41	60	Tetanus	1		
Influenza	189	793	2,656	Trachoma	40	79	41
Leprosy	1	1		Tuberculosis	262	248	286
Measles		4	6	Typhoid fever	54	41	25
Mumps	4	6	8	Whooping cough	34	56	53
Paratyphoid fever	17	6	6				

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER**

From medical officers of the Public Health Service, American consuls, Internationals, Offices of Public Health, Pan American Sanitary Bureau, health section of the League of Nations, and other sources. The reports contained in the following table must not be considered as complete or final as regards either the list of countries included or the figures for the particular countries for which reports are given.

**CHOLERA**

[C indicates cases; D, deaths; P, present]

Place	Week ended—												
	November 1936			December 1936			January 1937						
	7	14	21	28	5	12	19	26	2	9	16	23	30
Afghanistan													
Ceylon: Batticaloa													
India:													
Assam:													
Bassein													
Bombay Presidency:													
Bombay:													
Calcutta													
Central Provinces and Berar													
Chittagong													
Madras Presidency:													
Madras:													
Megapatam													
Northwest Frontier Provinces													
Orissa Province													
Punjab													
Rangoon													
Sind State													
Tuticorin													
India (French):													
Chandernagor Territory													
Karikal Province													
Pondichery Province													
Indochina (see also table below):													
Siam:													
Bangkok													
Provinces:													
On vessels: S. S. <i>Chaldina</i> at Calcutta from Chittagong													

1 Imported.

1 Suspected.













**CHOLERA, PLAGUE, SMALLPOX, TYPUS FEVER, AND YELLOW FEVER—Continued**

**SMALLPOX—Continued**

[C indicates cases; D, deaths; P, present]

Place	Week ended—															
	November 1936			December 1936						January 1937						
	July 26-Aug. 29, 1936	Aug. 30-Sept. 29, 1936	Sept. 30-Oct. 31, 1936	7	14	21	28	5	12	19	26	2	9	16	23	30
Morocco. (See table below.)			98													
Nigeria.....			1				1 11									
Lagos.....																
Northern Rhodesia.....																
Peru. (See table below.)																
Portugal (see also table below):																
Lisbon.....																
Oporto.....																2
Sierra Leone.....																
Freetown.....																
Southern Rhodesia.....																
Sudan (Anglo-Egyptian).....																
Tunisia.....																
Turkey. (See table below.)																
Union of South Africa.....																
Uruguay. (See table below.)																

On vessels:

S. S. *Tuzumba* at Rangoon from Calcutta..... 1 case..... Aug. 11, 1936

S. S. *Colorado Springs* at Manila from Shanghai..... 1 case..... Feb. 1, 1937

Place	July 1936	August 1936	September 1936	October 1936	November 1936	December 1936
	Angola.....					
Argentina:						
Chaco Territory.....		143	163			
Corrientes Province.....		1				
Entre Rios Province.....		6	3			
July Province.....	6	1		154	18	
Los Andes Territory.....				12		
Salta Province.....				31		2
Santa Fe Province.....				2		
Belgian Congo.....	98	88	105	110	25	

Mexico (see also table above):

Place	July 1936	August 1936	September 1936	October 1936	November 1936	December 1936
Chihuahua State—Chihuahua.....				1		
Collima State.....				3		
Jalisco State—Guadalajara.....				1		
Mexico State.....				5		
Mexico, D. F.....				12		
Mexico City.....				1		
Puebla State—Puebla.....				1		

Place	June 29	June 21	July 5	July 13	July 21	Aug. 2	Aug. 10	Aug. 18	Aug. 26	Sept. 3	Sept. 11	Sept. 19	Sept. 27	Oct. 5	Oct. 13	Oct. 21	Oct. 29	Nov. 6	Nov. 14	Nov. 22	Nov. 30	Dec. 8	Dec. 16	Dec. 24	Dec. 31	Jan. 7	Jan. 14	Jan. 21	Jan. 28	Feb. 4	Feb. 11	Feb. 18	Feb. 25			
Bolivia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Chosen	29	21	10	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Eritrea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
France	36	5	13	5	1	1	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Guatemala	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Indochina (see also table above)	93	8	119	87	8	39	150	210	38	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33
Japan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manchuria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Philippines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Uruguay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USSR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TYPHUS FEVER

Place	Week ended—																		
	October 1936							November 1936							December 1936			January 1937	
	3	10	17	24	31	7	14	21	28	5	12	19	26	2	9	16			
Algeria:																			
Algiers Department	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Algeria	73	1	1	42	1	1	1	1	1	1	1	1	1	1	1	1			
Constantine Department	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Gene	44	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4			
Constantine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Philippeville	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2			
Oran Department	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Australia:																			
Sydney	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Basutoland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Bolivia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Bulgaria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Ceylon:																			
Colombo	508	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Chile	87	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83			
Santiago	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Valparaiso	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3			
China:																			
Dairen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Hankow	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Nanking	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Shanghai	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Tientsin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Tsingtao	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Chosen:																			
(See table below.)	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2			
Czechoslovakia:																			
(See table below.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

1 For 2 weeks.

1 For 3 weeks.



	July 1936	August 1936	September 1936	October 1936	November 1936	December 1936
Morocco (see also table below)	0	6	1	1	1	1
Palentine	0	6	12	3	2	3
India	0	6	13	4	3	4
Java	0	5	3	1	4	1
Paraguay: Asuncion	D	1	1	1	1	1
Peru. (See table below.)	0	136	49	16	36	49
Poland	D	11	3	9	3	6
Portugal. (See table below.)	0	11	3	3	1	2
Rumania. (See table below.)	0	11	3	9	15	28
Sierra Leone: Freetown	0	1	1	1	1	1
Spain: Catalonia	0	1	1	1	1	1
Straits Settlements: Singapore	0	3	3	3	3	3
Sudan (Anglo-Egyptian)	0	0	0	0	0	0
Turkey:	0	0	0	0	0	0
Istanbul	0	2	1	1	3	1
Province	0	40	21	7	12	3
Turkey. (See table below.)	0	40	21	7	12	3
Union of South Africa. (See table below.)	0	0	0	0	0	0
Yugoslavia. (See table below.)	0	0	0	0	0	0

Place	July 1936	August 1936	September 1936	October 1936	November 1936	December 1936
Bolivia	47	29	4	1	1	1
China: Manchuria—Harbin	15	3	24	30	30	30
Chosen	80	20	1	1	1	1
Czechoslovakia	4	1	1	1	1	1
Finland	0	0	0	0	0	0
France	0	0	0	0	0	0
Greece (see also table above)	3	10	9	11	11	11
Guatemala	30	30	38	17	33	28
Mexico (see also table above):	0	0	0	0	0	0
Aguascalientes State: Aguascalientes	0	0	0	0	0	0
Chihuahua State	0	3	1	2	2	2
Durango State	0	1	1	1	1	1
Guerrero State	0	7	7	7	7	7
Jalisco State: Guadalajara	1	1	1	1	1	1
Mexico State	2	10	4	18	18	18
Mexico, D. F.	22	2	2	2	2	2
Mexico City	0	0	21	14	14	14
Other	0	0	8	7	7	7
Mexico—Continued.	0	0	0	0	0	0
Oaxaca State	0	0	0	0	0	0
Puebla State: Puebla	0	4	2	2	2	2
Queretaro State	0	10	6	2	2	2
San Luis Potosi State: San Luis Potosi	0	1	1	1	1	1
Sinaloa State	0	4	1	1	1	1
Tamaulipas State	0	3	1	1	1	1
Veracruz State	0	268	67	3	48	60
Yucatan State	0	168	32	25	40	173
Zacatecas State	0	39	15	27	21	18
Other	0	2	1	1	1	1
Union of South Africa:	0	0	0	0	0	0
Cape Province	0	68	113	48	75	74
Natal	0	2	10	14	7	10
Orange Free State	0	0	0	0	0	0
Transvaal	0	0	0	0	0	0
Other	0	53	10	6	7	7
Yugoslavia	0	0	0	0	0	0

1 For 2 weeks.



